

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018145**Date Inspected:** 10-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 11DW/11EW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11C-007, Side Plate transverse splice. The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11C-009, Side Plate transverse splice. The welder is identified as #040656 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated DP682-001-020, Deck Plate I-rib splice. The welder is identified as

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#040611 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated DP695-001-020, Deck Plate I-rib splice. The welder is identified as #044551 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated EP144-001-032, Edge Plate I-rib splice. The welder is identified as #057333 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11A-009, Deck Plate transverse splice. The welder is identified as #057333 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Segment 11CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP637-001-035, Side Plate WT stiffener hold back weld. The welder is identified as #040367 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

Segment 11DE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP638-001-016, Side Plate WT stiffener hold back weld. The welder is identified as #040367 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG072C-043, Longitudinal Diaphragm web to Floor Beam. The welder is identified as #047353 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-TC-U4b-F.

Segment 11CE/11DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated EP158-001-013, Edge Plate I-rib splice. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SP702-001-034, Side Plate I-rib splice. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Segment 11DE/11EE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11A-006, Edge Plate transverse splice. The welder is identified as #053871 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Segment 11EW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Partial Joint Penetration (PJP) weld joint. The Weld joint is designated LB3-004-058, Light Bracket to Deck Plate. The welder is identified as #040609 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-P4-F-1.

Segment 11DE

ZPMC personnel began using the ESAB E71T-1M Dual Shield 70 Ultra Plus electrode in production welding in the OBG Trial Assembly. Welding was performed in Segment 11DE at panel point 104 (cross beam side). The components welded were the Longitudinal Diaphragm web to Floor Beam. The weld joint is a Complete Joint Penetration, single bevel T-Joint without backing in the 3G (vertical) position. Root pass is to be Carbon Air Arc back gouged. The approved Welding Procedure Specification used was WPS-B-T-2233-ESAB. The approved welder was identified as #047353. The weld joint is identified as SEG072B-043.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as An Qing Xiang, Shi Lei and Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 11CW/11DW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate transverse CJP splice, cross beam and counter weight side. D scan was performed.

Segment 11DE/11EE

This QA Inspector observed the removal of fit up plate from the Side Plate transverse Splice by arc gouging, cross beam side.

Segment 11CE

This QA Inspector observed drilling of bolt holes in the Edge Plate for Suspender Bracket connection at panel

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point 102.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Dsouza,Christopher	QA Reviewer
